

AMENDMENTS TO THE CLAIMS

1. - 21. **(Cancelled).**

22. **(Previously Presented)** A method of preparing a product solution by removing biological components from a biological components-containing solution which comprises subjecting the biological components-containing solution to at least two of the following three treatment steps in succession, wherein the two treatment steps are selected from: (1) subjecting a solution to a step of adsorbing on to a selectively hydrophobic substrate a portion or all of proteins having a molecular weight equal to or higher than that of albumin and retaining the treated portion of the solution from which the adsorbed proteins have been removed; (2) subjecting a solution to a step of removing a portion or all of proteins having a molecular weight equal to or higher than that of albumin by fractionation with a molecular sieve and retaining the treated portion of the solution from which the proteins have been removed; and (3) subjecting a solution to a step of concentrating proteins by passing the solution through a porous separation membrane and retaining the treated portion of the solution that does not pass through the porous membrane, wherein the product solution is the retained, treated portion of the solution from at least two of the three treatment steps.

23. **(Previously Presented)** The method of preparing a product solution according to the claim 22, wherein the treatment step (1) is conducted using a permeation type separation membrane formed from a material containing one or more substances selected from cellulose, cellulose acetate, polycarbonate, polysulfone, poly(methacrylic acid) ester, poly(acrylic acid) ester, polyamide, polyvinylidene fluoride, polyacrylonitrile, polyester, polyurethane, polystyrene, polyethylene, and polypropylene.

24. **(Previously Presented)** The method of preparing a product solution according to the claim 22, wherein the treatment step (2) is conducted using a separation membrane containing one or more substances selected from cellulose, cellulose acetate, a polycarbonate, a polysulfone, a

poly(methacrylic acid) ester, a poly(acrylic acid) ester, a polyamide, polyvinylidene fluoride, polyacrylonitrile, a polyester, polyethylene, and polypropylene.

25. **(Previously Presented)** The method of preparing a product solution according to the claim 22, wherein the treatment step (3) is conducted using a porous separation membrane containing one or more substances selected from cellulose, cellulose acetate, a polycarbonate, a polysulfone, a poly(methacrylic acid) ester, a poly(acrylic acid) ester, a polyamide, polyvinylidene fluoride, polyacrylonitrile, polyethylene, and polypropylene.

26. **(Previously Presented)** The method of preparing a product solution according to the claim 22, wherein one or more substances selected from a group consisting of a polyethylene imine, an aminomethylpyridine, a polyphenol, a blue dye, a divalent metal ion, and an alkyl group-containing compound is fixed to the surface of the substrate used in step (1) or the molecular sieve used in step (2).

27. **(Previously Presented)** The method of preparing a product solution according to the claim 22, wherein before treatment step (1) or step (2) one or more substances is added to the solutions, said substances being selected from the group consisting of a surfactant, an emulsifier, an organic solvent, an alcohol, an ethylene glycol, a propylene glycol, a polyethylene imine, an aminomethylpyridine, protamine sulfate, ammonium sulfate, a polyphenol, a blue dye, a caotropic salt, and an alkyl-containing compound.

28. **(Previously Presented)** The method of preparing a product solution according to the claim 22, wherein the biological components-containing solution contains a sample of human-derived components.

29. **(Previously Presented)** An apparatus for preparing a solution by removing biological components from a biological components-containing solution, wherein the apparatus comprises at least two modules joined by a flow path and selected from the following modules: (1) a

module for adsorbing on to a selectively hydrophobic substrate a portion or all of proteins having a molecular weight equal to or higher than that of albumin; (2) a module for removing a portion or all of proteins having a molecular weight equal to or higher than that of albumin by fractionation with a molecular sieve; and (3) a module for concentrating proteins by passing a portion of the solution through a porous separation membrane and retaining the portion of the solution that does not pass through the porous membrane.

30. **(Previously Presented)** The apparatus for preparing a solution according to the claim 29, further comprising a liquid flow-out path for transporting the prepared solution which is joined to a liquid chromatograph, an electrophoretic apparatus, or a mass spectrometer.

31. **(NEW)** A method of preparing a product solution by removing biological components from a biological components-containing solution which comprises subjecting the biological components-containing solution to at least two of the following three treatment steps in succession, wherein the two treatment steps are selected from: (1) subjecting a solution to a step of adsorbing on to a selectively hydrophobic substrate a portion or all of proteins having a molecular weight equal to or higher than that of albumin and retaining the treated portion of the solution from which the adsorbed proteins have been removed; (2) subjecting a solution to a step of removing a portion or all of proteins having a molecular weight equal to or higher than that of albumin by fractionation with a molecular sieve having a cut off value of 50 KD or lower and retaining the treated portion of the solution from which the proteins have been removed; and (3) subjecting a solution to a step of concentrating proteins by passing the solution through a porous separation membrane and retaining the treated portion of the solution that does not pass through the porous membrane, wherein the product solution is the retained, treated portion of the solution from at least two of the three treatment steps.